

[METHOD FOR EPITAXIALLY GROWING A LEAD ZIRCONATE TITANATE THIN FILM]

Abstract of Disclosure

An epitaxial growing method for a lead zirconate titanate (PZT) thin film is described. A layer of lanthanum nickel oxide (LNO) thin film is grown on a substrate by an in-situ method, wherein the lattice structure of the lanthanum nickel oxide thin film is similar to the desired lattice structure of the PZT thin film. Moreover, the lattice parameters of the lanthanum nickel oxide thin film are also similar to the desired lattice parameters of the PZT thin film. A PZT thin film with the desired lattice structure is then epitaxially grown at low temperature on the LNO thin film at 350 degrees Celsius to 500 degrees Celsius.

Figures